

REMARKS

Claims 1-18 remain in the application.

Reconsideration of this application is respectfully requested.

Claim Rejections - 35 U.S.C. § 103:

Claims 1-7, 9 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al. (US 5,666,655) in view of Corrigan III et al. (US 6,697,345).

Applicants respectfully traverse. Independent claim 1, as previously amended, recites in step (b) "gathering a communication connection statistic on the plurality of radios; and (c) reconfiguring the grouping of the plurality of radios based on the communication connection statistic gathered in step (b)."

The Examiner conceded that Ishikawa does not specifically disclose when the communication statistic is relating to a connection. The Examiner further conceded that Ishikawa or Corrigan does not specifically disclose reconfiguring the grouping of radios.

The Corrigan passage cited by the Examiner recites: "[t]he remote terminals may thus be "grouped" according to channel quality,...". Thus, the Examiner is equating the "channel quality" of Corrigan with Applicants' communication connection statistic, and the Examiner is also equating the "remote terminals" of Corrigan with the plurality of radios. However, Applicants assert that the teachings of Corrigan can not be combined into the system of Ishikawa for the reasons stated below.

The "state" of the mobile station of Ishikawa is quite different from the "channel quality" taught by Corrigan. Throughout the Ishikawa reference the "state" is referred to as a function of the mobility feature of the mobile station. Column 22, lines 18-22 of Ishikawa describe, "... according to the features of the mobile stations such as distances, the moving directions, and the moving speeds..." The features of Ishikawa deal with mobility features. There is no teaching or suggestion that "channel quality" as taught by Corrigan could be combined into the system of Ishikawa. In fact, doing so would cause the Ishikawa system to fail because channel quality" is

not exclusively dependant upon distance, moving direction or moving speed. Propagation delay, propagation obstructions and multipath delay often affect channel quality more adversely than distance direction or speed therefore, grouping based on those parameters would be equivalent to grouping based on random selection. Furthermore, since channel quality is a dynamic parameter that changes on the order of nano seconds, the overhead involved in grouping and regrouping radios at that rate would prove to cripple the performance of the system and diminish the purpose of the invention.

Furthermore, Ishikawa teaches using the various states (distances, moving directions, and moving speeds) of the mobile stations to accomplish two tasks. First, all unused channels get used and second, based on certain states certain radios are allocated priority to the channels. This is described in col. 2, lines 55-67 of Ishikawa and claimed in claim 8. Thus, Ishikawa uses "states" to manage priorities whereas Applicants' invention uses "connection statistics" to manage "groups/regroups". The Corregan reference states that remote terminals can be grouped according to channel quality, but Corregan cannot reconfigure groups because they are fixed units that create a static channel that is determined by the physical elements that separate the transmitter and receiver. Since the channel quality will not change on a short term basis, a regrouping procedure would result in a set of groups that were identical to the initial grouping set which would result in no net change.

As the Examiner stated in the last Office Action, the Ishikawa reference does not disclose reconfiguring the grouping of radios. Applicants assert that it would not have been obvious to one skilled in the art to extend the teachings of Ishikawa to reconfigure the group of mobile units absent some teaching or suggestion to do so. Ishikawa's teachings, as mentioned above, are limited to using unused channels and channel prioritization. Neither Ishikawa nor Corregan taken individually or combined teach reconfiguring a grouping of radios based on a communication connection statistic.

Thus, the rejection of independent claim 1 under § 103(a) is overcome. Claims 2-7, 9 and 17 are all dependent claims providing further limitations to what is believed to be an allowable claim 1 and hence are also in condition for allowance.

Claims 8, 10-14, 16 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al. (US 5,666,655) in view of Corrigan III et al. (US 6,697,345) and further in view of Cook et al. (US 6,389,284).

Claims 8, 10-14, 16, and 18 all include, or depend on, claims that include the recitation the "connection" aspect of the communication statistic. Claim 11 is an independent claim which recites the steps of (b) gathering a communication connection statistic on the plurality of radios; (c) reconfiguring the grouping of radios based on the communication connection statistic gathered in step (b) and allowing access to the radio communication system by each of the two or more groups of radios at different predetermined periods of time.

The arguments presented above (with respect to claim 1) are also applied to the rejection of claim 11. Furthermore, the Examiner stated that Cook teaches in col. 3, lines 12-15 allowing access to the radio communication system by each of two or more groups of radios at different predetermined periods of time. However, what Cook specifically recites is: "the base station is configured to grant network access to the user subscriber unit upon receiving the request for network access at the base station within the specified time for response." These are quite different, because one system is dealing with separating the chosen groups in time to allow non-interfered access to a communications channel while the other relates to the process of a base station "granting" or "denying" access to a user in a communications system. Thus, it would not be obvious to combine these three references. Even if the references could be combined, the overall system would fail because there would be a conflict based on channel access as to whether a radio of a group or a radio of an individual user was allowed to access the communication channel.

None of the cited references, Ishikawa, Corrigan or Cook, taken individually or combined teach or suggest "reconfiguring the grouping of radios based on a communication connection statistic". Claims 8, 10, 12-14, 16, and 18 are all dependent claims which provide further limitations to what are believed to be allowable independent claims 1 or 11 and thus are also in condition for allowance. Accordingly, the rejection of claims 8, 10-14, 16, and 18 under § 103(a) is believed to be overcome.

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa et al. (US 5,666,655) in view of Corrigan III et al. (US 6,697,345) and further in view of Cook et al. (US 6,389,284) and Raith (US 6,385,461).

None of the cited references, Ishikawa, Cook, or Raith taken individually or in combination teach or suggest reconfiguring a grouping of radios based on a communication connection statistic. In addition to the arguments presented above, the teachings of the Raith reference pertain to radios having the option to join or leave a group call based on "active user groups of interest" and as such are unrelated to forming channel access groups, to reduce channel contention, based on a "communication statistic". Thus, the combination of these references is not appropriate. Claim 15 also provides further limitation to what is believed to be an allowable claim 11. Therefore, the rejection of dependent claim 15 under 103(a) is believed to be overcome.


Accordingly, this application is believed to be in proper form for allowance and an early notice of allowance is respectfully requested.

Please charge any fees associated herewith, including extension of time fees, to **Deposit Account 50-2117**.

Respectfully submitted,

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